

GWS 1-03 – Welding and Brazing Material Procurement & Control

Rev. 1, 5/18/05

Attachment 5, Filler Material Procurement Required Tests

See: Notes at bottom of page

AWS Spec	Product Type	Actual Chem Analysis	Tensile	Impact Test	Sound -ness (X-ray)	Moisture	Bend (face, side, or both)	Spattering characteristics	Sieve analysis	Bead-on-plate test	Supplemental Designation for Diffusible Hydrogen	Comments
AWS 5.1	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X	X	X	X	X*					H4	* Low Hydrogen Electrodes only
AWS 5.2	Solid and Composite Rods for OFW	X										
AWS 5.3	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X										
AWS 5.4	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X										
AWS 5.5	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X	X	X	X	X*					H4	* Low Hydrogen Electrodes only
AWS 5.6	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X			X							

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AWS 5.7	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW)	X										
AWS 5.8	Bare Brazing and Braze Welding Filler Materials	X										
	Vacuum Grade Brazing Fillers	X						X				
	Brazing Metal Powders	X							X			
AWS 5.9	Bare Solid and Metal Cored (Composite) Electrodes for SAW	X										
	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW)	X										

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AWS 5.10	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW)	X			X*					X*		* Soundness for electrodes - Bead-on-plate for rods
	Solid and Composite Rods for OFW	X								X		
AWS 5.11	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X	X		X		X					
AWS 5.13	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X										
	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW)	X										
	Solid and Composite Rods for OFW	X										

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AWS 5.14	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X										
AWS 5.15	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X										
	Flux Cored Electrodes for FCAW and ESW	X										
	Solid or Metal Cored Electrodes - Flux Combinations for SAW and ESW	X										
	Solid and Composite Rods for OFW	X										
AWS 5.16	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X										

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AWS 5.17	Bare Solid and Metal Cored (Composite) Electrodes for SAW	X										
	Solid or Metal Cored Electrodes - Flux Combinations for SAW and ESW	X	X	X	X							
AWS 5.18	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X	X		X							
AWS 5.19	Solid and Composite Rods for OFW	X										
AWS 5.20	Flux Cored Electrodes for FCAW and ESW	X	X	X	X							
AWS 5.21	Covered Solid and Metal Cored (Composite) Electrodes for SMAW	X										

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AWS 5.21 (cont)	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X										
	Solid and Composite Rods for OFW	X										
AWS 5.22	Flux Cored Electrodes for FCAW and ESW	X										
AWS 5.23	Bare Solid and Metal Cored (Composite) Electrodes for SAW	X										
	Solid or Metal Cored Electrodes - Flux Combinations for SAW and ESW	X	X	X	X							
AWS 5.24	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X										

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AWS 5.25	Solid or Metal Cored Electrodes - Flux Combinations for SAW and ESW	X	X	X	X							
	Solid or Metal Cored Electrodes - Flux Combinations for SAW and ESW	X	X	X	X							
AWS 5.26	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X	X	X	X							
	Flux Cored Electrodes for FCAW and ESW	X	X	X	X							
AWS 5.27	Solid and Composite Rods for OFW	X										
AWS 5.28	Bare Solid and Metal Cored (Composite Rods and Electrodes for GTAW, PAW, GMAW, and EGW	X	X		X							

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AWS 5.29	Flux Cored Electrodes for FCAW and ESW	X	X	X	X							
AWS 5.30	Consumable Inserts	X										
Notes: a). Tests called for in this table shall be preformed only when required by the applicable AWS specification for the particular classification involved. b). Test shall be performed in the manner prescribed by the applicable specification. c). Testing to one polarity shall be adequate.												